

Notice of Allowability

Application No.

10/005,263

Examiner

John J. Tabone, Jr.

Applicant(s)

SMITH, BRIAN L.

Art Unit

2138

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 05/18/2006.
2. ☒ The allowed claim(s) is/are 1-23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


GUY LAMARRE
PRIMARY EXAMINER

DETAILED ACTION

1. Claims 1-23 remain pending in the current application and have been examined. Claims 1, 11, 16 and 19 are amended in amendment filed 05/18/2006. Claims 11, 16, 19 and 22 were further amended in the Examiner's amendment below.
2. The 35 USC § 112, first and second paragraph rejections are withdrawn by the Examiner as a result of Applicant's amendment filed 05/18/2006 and subsequent Examiner's Amendment below.

Response to Arguments

3. Applicant's arguments, filed 05/18/2006, with respect to independent claims 1, 11, 16 and 19 have been fully considered and are persuasive. The Non-Final Rejection of Record has been withdrawn.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Rory D. Rankin on 08/01/2006.

The application has been amended as follows:

Please amend claims 1, 11, 16, 19 and 22 as indicated below:

Claim 1:

On line 4, change "a first placement designation;" to "a first placement designation assigned to the first transmitter;".

On line 6, change "a second placement designation," to "a second placement designation assigned to the second transmitter,".

Claim 11:

(Currently Amended) An entity configured to perform device fabrication fault testing, said entity comprising:

a signal connector configured to transmit a signal, wherein said connector is assigned a first placement designation; and

a control unit configured to:

transmit a first data via said signal connector, wherein said first data corresponds to said first placement designation, in response to detecting said first placement designation has been selected for a transmitter bridge test;

transmit a second data different from said first data via said signal connector in response to detecting a placement designation different from said first placement designation has been selected for a transmitter bridge test;

transmit a third data via said signal connector, wherein said third data corresponds to a second placement designation, in response to detecting said signal connector is coupled to a first receiver, said second placement designation corresponds to said first receiver, and said second placement designation has been selected for a receiver bridge test; and

transmit a fourth data different from said third data via said signal connector in response to detecting a placement designation different from said second placement designation has been selected for a receiver bridge test;

wherein in response to receiving data transmitted by the control unit, a receiver is configured to detect a fabrication fault in response to determining data received from the control unit does not match expected data.

Claim 16:

(Currently Amended) An entity configured to facilitate device fabrication fault testing, said entity comprising:

a signal connector configured to receive a signal, wherein said connector is assigned a first placement designation; and

a control unit configured to:

receive a first data via said signal connector;

detect a first device fabrication fault in response to detecting:

said signal connector is coupled to a transmitter assigned a second placement designation;
said second placement designation has been selected for a transmitter bridge test; and
said first data does not correspond to said second placement designation;
detect a second device fabrication fault in response to detecting:
said first placement designation has been selected for a receiver bridge test; and
said first data does not correspond to said first placement designation.

Claim 19:

(Currently Amended) A system configured to perform device fabrication fault testing comprising:
a first entity including a first transmitter, wherein said first transmitter comprises a first signal connector, and wherein the first signal connector corresponds to is assigned a first placement designation; and
a second entity including a first receiver, wherein said first receiver comprises a second signal connector, and wherein said second signal connector corresponds to is assigned a second placement designation;
wherein in response to detecting a transmitter test:

the first entity is configured to convey a first data which corresponds to said first placement designation, and the second entity is configured to:
expect to receive said first data, in response to detecting the selection of said first placement designation; and
detect a fabrication fault in response to determining received data does not match the first data;

the first entity is configured to convey a second data different from said first data, in response to detecting the selection of a third placement designation which is different from said first placement designation_{[[;]]}, and the second entity is configured to:
expect to receive said second data, in response to detecting the selection of said third placement designation; and
detect a fabrication fault in response to determining received data does not match the second data;

wherein in response to detecting a receiver test:

the first entity is configured to convey a third data which corresponds to said second placement designation, and the second entity is configured to:
expect to receive said ~~second~~ third data, in response to detecting the selection of said second placement designation_{[[;]]} and

detect a fabrication fault in response to determining received data
does not match the third data;

the first entity is configured to convey a fourth data different from said
third data, in response to detecting the selection of a fourth
placement designation which is different from said second
placement designation[[:]],and the second entity is configured to:
expect to receive said second data, in response to detecting the
selection of said fourth placement designation; and
detect a fabrication fault in response to determining received data does
not match the fourth data.

Claim 22:

On line 3, change "bridge" to "transmitter".

Allowable Subject Matter

Claims 1-23 are allowed.

The following is an Examiner's Statement of Reasons for Allowance:

The present invention relates to the field of digital communications and, more particularly, to the test and debug of digital systems.

The claimed invention as set forth in claim 1 (broadest claim) recites features such as:

A method for detecting device fabrication faults in a system, which comprises:

transmitting a first data via a first transmitter, *wherein the first data corresponds to a first placement designation;*

transmitting a second data via a second transmitter, *wherein the second data corresponds to a second placement designation, and wherein the second placement designation is different than the first placement designation;*

receiving the first data at a first receiver;

receiving the second data at a second receiver; and

detecting a fault in response to determining one or both of the received first and second data do not match an expected data.

The prior arts of record teach the claimed method for detecting device fabrication faults in a system which comprises transmitting a first data (test pattern 300) via a first transmitter (203, Fig. 5B); transmitting a second data (test pattern 300) via a second transmitter (203, Fig. 5B). The prior arts of record also teach receiving the first data (300, 200S-1, Fig. 5B) at a first receiver (204, 200S-1, Fig. 5B) and receiving the second data (300, 200S-2, Fig. 5B) at a second receiver and detecting a fault in response to determining one or both of the received first and second data do not match an expected data. (Col. 6, ll. 30-46, col. 7, ll. 7-14). Further, The prior arts of record teach similar limitations in independent claims 11, 16 and 19; Smith et al. (US-6505317) is one example of such prior arts.

The prior arts of record, however, fail to teach, singly or in combination, features directed to placement designations, which are utilized to describe how “contact points...are assigned a relative placement designation”. Further, a “placement

designation of either the transmitter or receiver, or both, in an adjacent transmitter/receiver pair” may be “temporarily reassigned with a different designation” as claimed in independent claims 11, 16 and 19. As such, modification of the prior art of record to include the claimed *placement designations* can only be motivated by hindsight reasoning, or by changing the intended use and function of the prior art themselves. Therefore, it is not clear that one of ordinary skill in the art at the time of the invention would have made the necessary modifications to the prior art of record to encompass the *placement designations* set forth in the present application. Moreover, none of the prior arts of record, taken either alone or in combination, anticipate nor render obvious the *placement designations* as set forth in independent claims 1, 11, 16 and 19. Hence, claims 1-23 are allowable over the prior arts of record.

The Examiner agrees with the Applicant's arguments with regard to this feature in view of the arts of record; therefore, the Examiner favors the allowance of claims 1-23. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

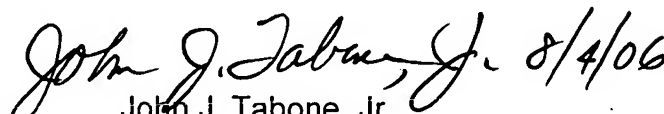
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Tabone, Jr. whose telephone number is (571) 272-3827. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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